REMARKS

Reconsideration of the application in view of the following remarks is respectfully requested. No claims have been canceled or amended. Claims 37-99 are currently pending in the application.

In the Office Action, the Examiner rejected claims 37-39, 44-45, 48, 51-60, 65-66, 69, 72-81, 86-87, 90 and 93-99 under 35 U.S.C. §103(a) as being unpatentable over Mangat et al. (U.S. Patent No. 6,081,814, hereinafter, "Mangat") in view of Pearson (U.S. Patent No. 5,903,754). This rejection is respectfully traversed.

Independent Claim 37

Independent method claim 37 recites:

> A method implemented by a server, comprising:
> receiving a request from a first client to browse contents of a first file system on a first data server, wherein the first data server implements the first file system for managing file access and storage, and wherein the first client is unaware that the first data server implements the first file system;
> selecting a first protocol interpreter from a plurality of different protocol interpreters, wherein the first protocol interpreter implements a first file access protocol which enables interaction with the first file system;
> invoking the first protocol interpreter to interact with the first file system of the first data sever to obtain therefrom a first list of contents, wherein the first list of contents sets forth a hierarchical listing of at least a portion of the contents of the first file system on the first data server, the first list of contents comprising one or more directories and zero or more files; and
> sending at least a portion of the first list of contents to the first client. (emphasis added)

The method of claim 37 provides an advantageous way for a client to interact with the file system of a data server without being aware of the file system that is implemented on the data server. According to claim 37, this is achieved via a server (referred to in the following discussion as the intermediate server). Specifically, when the intermediate

server receives a request from a client to browse the contents of a file system on a data server, the intermediate server selects a protocol interpreter from a plurality of different protocol interpreters. The selected protocol interpreter implements a file access protocol, which enables the intermediate server to interact with the file system on the data server.

Once the protocol interpreter is selected, the intermediate server invokes the protocol interpreter to interact with the file system on the data server. This interaction enables the intermediate server to obtain from the data server a list of contents. This list of contents sets forth a hierarchical listing of at least a portion of the contents of the file system. This list of contents comprises one or more directories and zero or more files. The intermediate server then provides the list of contents to the client. By doing so, the intermediate server in effect provides the client with a view of a portion of the contents of the file system of the data server, thereby allowing the client to browse the file system. This is achieved without the client even being aware of the file system that is implemented on the data server.

Also, because the intermediate server selects the protocol interpreter from a plurality of different protocol interpreters, the intermediate server can, by selecting the proper protocol interpreters, interact with different data servers implementing different file systems. This in turn means that the client, via the intermediate server, can browse the file system contents of different data servers implementing different file systems. Thus, without even being aware of any file system implemented by any data servers, the client is able to browse the file system contents of a number of different data servers implementing a number of different file systems.

Such a method is neither disclosed nor suggested by Mangat and Pearson, taken individually or in combination. In rejecting claim 37, the Examiner admitted:

> Mangat does not explicitly discloses[sic]:
> Selecting a first protocol interpreter from a plurality of different protocol interpreters, wherein the first protocol interpreter implements a first file access protocol which enables interaction with the first file system;
> Invoking the first protocol interpreter to interact with the first file system of the first data sever to obtain therefrom a first list of contents.

To try to fill the void left by Mangat, the Examiner cited Pearson, contending that Pearson discloses the aspects of claim 37 that are not disclosed by Mangat. Specifically, the Examiner stated:

> However, in an analogous art, Pearson discloses a protocol stack used to provide means for establishing the necessary protocol within a communication program, even as protocol requirements are changing....
> Therefore, one of ordinary skill in the art at the time the invention was made would have found it obvious to incorporate or implement Pearson's selecting a first protocol interpreter and invoking the interpreter to interact with first file system in Mangat's system in order to establish a data transfer protocol allowing communication to exist.

Applicant respectfully disagrees with this rationale. Claim 37 specifically requires that the first protocol interpreter implement a first file access protocol which enables interaction with the first file system. There is nothing in Pearson that deals with file access protocols. Instead, Pearson addresses low level communication protocols. This is made clear in Col. 7, lines 36-40, wherein Pearson states:

> The features that are provided in the protocol stack are those that are important at a systems communication level, e.g., compression of the data within a message reduces the bandwidth required to transmit the data, and are not necessarily user level features.

File access protocols and communication protocols are very different, and one cannot simply be substituted for the other. To elaborate, a communication protocol is a protocol that is used to enable information to be transferred from one node of a network to another. A communication protocol typically defines how a network packet is to be formatted in order for the packet to be properly routed through the network (for example, see Col. 1, lines 26-36). In sharp contrast, a file access protocol is used to interact with a

file system to access information from the file system. One of the purposes of a file access protocol is to issue the proper commands to the file system. By issuing the proper commands in the proper format, the file access protocol enables information in the file system to be accessed. As the above discussion shows, these two types of protocols are used for very different purposes. There is nothing in Pearson that addresses file access protocols.

For the sake of discussion, it will be assumed that Pearson teaches selecting a network protocol interpreter from a plurality of network protocol interpreters, and that it would have been obvious to combine Mangat with Pearson (note: Applicant is not admitting that this is taught by Pearson, or that it would have been obvious to combine the references). Even if the above assumptions were true, the combination of Mangat and Pearson still would not produce the method of claim 37. As noted above, Pearson addresses only communication protocols. There is nothing in Pearson that addresses file access protocols. Thus, even if Mangat and Pearson were combined, all that would be derived would be a system that enables files to be accessed across different types of communication channels using different communication protocols. The combination still would not allow interaction with different file systems using different file access protocols, which can be achieved with the method of claim 37. Thus, as argued above, Mangat and Pearson, taken individually or in combination, fail to disclose or suggest "selecting a first protocol interpreter from a plurality of different protocol interpreters, wherein the first protocol interpreter implements a first file access protocol which enables interaction with the first file system" and "invoking the first protocol interpreter to interact with the first file system of the first data sever to obtain therefrom a first list of

contents". For at least this reason, Applicant submits that claim 37 is patentable over Mangat and Pearson.

Claims Depending from Claim 37

Claims 38-39, 44-45, 48, and 51-57 depend from, and hence, incorporate all of the limitations of claim 37. These claims also recite further limitations that render them patentable over Mangat and Pearson. Applicant submits that these claims are patentable over Mangat and Pearson for at least the reasons given above in connection with claim 37.

Claims 58-60, 65-66, 69, 72-78

Claims 58-60, 65-66, 69, and 72-78 are apparatus claims, which are analogous to the method claims of claims 37-39, 44-45, 48, and 51-57. Applicant submits that claims 58-60, 65-66, 69, and 72-78 are patentable over Mangat and Pearson for at least the same reasons as those given above in connection with claims 37-39, 44-45, 48, and 51-57.

Claims 79-81, 86-87, 90, 93-99

Claims 79-81, 86-87, 90, and 93-99 are computer readable medium claims which are analogous to the method claims of claims 37-39, 44-45, 48, and 51-57. Applicant submits that claims 79-81, 86-87, 90, and 93-99 are patentable over Mangat and Pearson for at least the same reasons as those given above in connection with claims 37-39, 44-45, 48, and 51-57.

Claims 40-43, 61-64, and 82-85

In the Office Action, the Examiner rejected claims 40-43, 61-64, and 82-85 under 35 U.S.C. §103(a) as being unpatentable over Mangat in view of Pearson and further in view of Stollfus et al. (U.S. Patent No. 6,321,258, hereinafter "Stollfus"). This rejection is respectfully traversed.

Dependent claims 40-43 depend from, and hence, incorporate all of the limitations of claim 37. If claim 37 is patentable over Mangat, Pearson, and Stollfus, then it follows that claims 40-43 are also patentable over Mangat, Pearson, and Stollfus.

As argued above, Mangat and Pearson fail to disclose or suggest at least several limitations of claim 37. These limitations are also not disclosed or suggested by Stollfus (and the Examiner has not contended that they are shown by Stollfus). Thus, even if Mangat, Pearson, and Stollfus were combined (assuming arguendo that it would have been obvious to combine the references), the combination still would not give rise to the invention claimed in claim 37. Thus, Applicant submits that claim 37 is patentable over Mangat, Pearson, and Stollfus, taken individually or in combination. Applicant further submits that claims 40-43, which depend from claim 37, are likewise patentable over Mangat, Pearson, and Stollfus for at least the same reasons as those given above in connection with claim 37.

Claims 61-64 are apparatus claims, which are analogous to the method claims of claims 40-43. Applicant submits that claims 61-64 are patentable over Mangat, Pearson, and Stollfus for at least the same reasons as those given above in connection with claims 40-43.

Claims 82-85 are computer readable medium claims, which are analogous to the method claims of claims 40-43. Applicant submits that claims 82-85 are patentable over Mangat, Pearson, and Stollfus for at least the same reasons as those given above in connection with claims 40-43.

Claims 46-47, 49-50, 67-68, 70-71, 88-89, and 91-92

In the Office Action, the Examiner rejected claims 46-47, 49-50, 67-68, 70-71, 88-89, and 91-92 under 35 U.S.C. §103(a) as being unpatentable over Mangat in view of Pearson and further in view of Busey et al. (U.S. Patent No. 5,764,916, hereinafter "Busey"). This rejection is respectfully traversed.

Dependent claims 46-47 and 49-50 depend from, and hence, incorporate all of the limitations of claim 37. If claim 37 is patentable over Mangat, Pearson, and Busey, then it follows that claims 46-47 and 49-50 are also patentable over Mangat, Pearson, and Busey.

As argued above, Mangat and Pearson fail to disclose or suggest at least several limitations of claim 37. These limitations are also not disclosed or suggested by Busey (and the Examiner has not contended that they are shown by Busey). Thus, even if Mangat, Pearson, and Busey were combined (assuming arguendo that it would have been obvious to combine the references), the combination still would not give rise to the invention claimed in claim 37. Thus, Applicant submits that claim 37 is patentable over Mangat, Pearson, and Busey, taken individually or in combination. Applicant further submits that claims 46-47 and 49-50, which depend from claim 37, are likewise patentable over Mangat, Pearson, and Busey for at least the same reasons as those given above in connection with claim 37.

Claims 67-68 and 70-71 are apparatus claims, which are analogous to the method claims of claims 46-47 and 49-50. Applicant submits that claims 67-68 and 70-71 are patentable over Mangat, Pearson, and Busey for at least the same reasons as those given above in connection with claims 46-47 and 49-50.

Claims 88-89 and 91-92 are computer readable medium claims, which are analogous to the method claims of claims 46-47 and 49-50. Applicant submits that claims 88-89 and 91-92 are patentable over Mangat, Pearson, and Busey for at least the same reasons as those given above in connection with claims 46-47 and 49-50.

For the reasons set forth above, Applicant respectfully submits that claims 37-99 are patentable over the art of record, including the art cited but not applied. Accordingly, allowance of all pending claims is hereby respectfully solicited.

Respectfully submitted,

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